



# SIKA AT WORK

## WATERPROOFING OF DECK, FOSSANO VIADUCT, ITALY

CONCRETE PROTECTION: Sikalastic®-6100 FX

BUILDING TRUST



# WATERPROOFING OF VIADUCT DECK



## PROJECT DESCRIPTION

In the last four years, for a variety of reasons, Italy has experienced the collapse of five road bridges. Among them was the viaduct on the ring road in Fossano in northern Italy in 2017. Luckily, in this case, no vehicles were going across or underneath the structure. The sudden collapse took place without out-of-plane displacements.

Project name: Fossano viaduct

Location: Fossano, Italy

Year: 2019

Market sector: Civil Engineering

## PROJECT REQUIREMENTS

The reconstruction of the viaduct included the casting of a new concrete slab and the installation of barriers. Additionally, it was necessary to apply a waterproofing membrane to the concrete slab, before the application of the asphalt pavement to protect the concrete against water damage.

## SIKA SOLUTIONS

Considering all the requirements of the project, the following procedure was adopted in accordance with EN 1504 parts 2 and 3.

- Structural refurbishment with SikaEmaco® S 444 FR, R4 class, concrete repair mortar reinforced with metal fibres.
- Reprofiling and levelling of the surface with SikaEmaco® S 950, R3 class, polymer modified concrete repair mortar reinforced with polyacrylonitrile (PAN) fibres.
- Sealing of movement joints with Sika MultiSeal®-924 thermoplastic tape.
- Waterproofing of bridge deck with Sikalastic®-6100 FX single-component elastic membrane before application of hot-rolled asphalt.

Any product name or reference reflects the Sika product name at the time of creation of this document and may differ from the product name or reference during past events.

Our most current General Sales Conditions shall apply. Please consult the most current local Product Data Sheet prior to any use.



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## CUSTOMERS BENEFIT

- Complete solution including concrete repair, surface waterproofing and joint treatment with compatible products offered by a single supplier.
- Rapid completion of work as the waterproofing membrane could be sprayed on in a single layer.
- Low consumption of Sikalastic®-6100 FX, reducing the volume of packaging waste as well as application costs.
- Sikalastic®-6100 FX is resistant to asphalt installation up to 160°C and maintains A4 crack bridging class and good adhesion after cooling of the asphalt.
- Sikalastic®-6100 FX offers high waterproofing capabilities, even up to 5 bars of positive pressure.

## PROJECT FACTS AT A GLANCE

Total area waterproofed: approx. 30,000 m<sup>2</sup>. Sikalastic®-6100 FX applied with a thickness of 2.5 mm and approx. 2.35 kg of product per m<sup>2</sup>. The junction for Marene, which is close to the viaduct, was reopened to traffic in August 2019. The rest of the Fossano ring road was reopened in August 2020, three years after the collapse of the viaduct. The use of Sikalastic®-6100 FX instead of traditional cementitious two-component waterproofing membranes saved approx. 30 tonnes of waterproofing material.

## PROJECT PARTICIPANTS

Project Owner:

ANAS Spa

Applicator/Contractor:

Civelli costruzioni Srl

Viale Ticino, Gavirate (Varese)

Technical/Commercial Assistance:

Frontini Ernesto

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